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Amendment to the Claims

1. (Currently Amended) A process for isolating ~~an intact clone of one~~ a target nucleic acid fragment having a known characteristic, from a number of fragments capable of containing said target nucleic acid fragment, said process comprising:

a) identifying a target nucleic acid fragment having a known characteristic;

b) providing a number of nucleic acid fragments of different characteristics, which are capable of containing one or more of said target nucleic acid fragment having a known characteristic,

c) preparing ~~an~~ first initial library of clones from said number of fragments using a vector containing no more than a pre-determined number of known restriction sites;

d) subjecting said first initial library to a plurality of restriction enzymes individually~~, which plurality of enzymes do not include those to which said vector is sensitive,~~ to produce a group of monodigested libraries;

e) screening said group of monodigested libraries for said known characteristic to detect the presence of ~~intact~~ said target fragments, to thereby determine those restriction enzymes to which said target fragment is insensitive;

f) preparing a second initial library which is substantially the same as the first initial library;

~~fg)~~ producing a multidigested library by digesting ~~subjecting~~ said second initial library ~~to~~ with substantially all of said plurality of restriction enzymes to which said target fragment is insensitive, ~~to produce a multidigested library having an intact clone of~~ and obtaining said multidigested library which contains the target nucleic acid fragment; and

~~gh)~~ isolating said target nucleic acid fragment~~an intact clone~~ from the multidigested library.

2. (Previously amended) The process of Claim 1 wherein said plurality of restriction enzymes comprises at least 10 restriction enzymes.

3. (Previously amended) The process of Claim 1 wherein said plurality of restriction enzymes comprises at least 50 restriction enzymes.

4. (Previously amended) The process of Claim 1 wherein said plurality of restriction enzymes comprises at least 70 restriction enzymes.

5. (Previously amended) The process of Claim 1 wherein said pre-determined number of known restriction sites is four.

6. (Previously amended) The process of Claim 1 wherein said pre-determined number of known restriction sites is three.

7. (Previously amended) The process of Claim 6 wherein at least one of said three sites is different from, and flanked by, said two remaining sites.

8. (Original) The process of claim 1 wherein said restriction enzymes have cleavage sites from 5 to 6 nucleotides in length.

9. (Previously amended) The process of Claim 1 including the further step of transforming and replicating said intact clone of the target nucleic acid fragment.

10. (Previously amended) The process of Claim 9 including the further step of isolating said intact clone.

11. (canceled).

12. (Previously amended) The process of Claim 1 comprising, after step b), the further step of transfecting said monodigested libraries in cellular hosts.

13. (Previously amended) The process of Claim 1 comprising the further step of verifying the presence of said target fragment in said initial library by transfecting in a cellular host and screening said transfected host for the presence of said target fragment.

14. (Previously amended) The process of Claim 1 comprising the further step of verifying the presence of said target fragment in said multi-digested library by transforming said library and screening said transformed library for the presence of said target fragment.

15. (Previously amended) The process of Claim 1 wherein said number of fragments contains up to 10^8 fragments, each from about 0.1kb to 5kb in size.

16. (Currently amended) A process for isolating ~~an intact clone of one~~ a target nucleic acid fragment ~~capable of containing said target nucleic acid fragment~~ having a known characteristic, from a group of fragments capable of containing said target nucleic acid fragment, said process comprising:

a) identifying a target nucleic acid fragment having a known characteristic of interest;

b) providing a number of said nucleic acid fragments of different characteristics, which are capable of containing one or more of said target nucleic acid fragments having a known characteristic;

c) preparing ~~an~~ first initial library of clones from said number of fragments using a vector containing no more than a pre-determined number of known restriction sites;

d) verifying the presence of said target fragment in said initial library by transfecting in a cellular host and screening said transfected host for the presence of said target fragment;

e) subjecting said first initial library to a plurality of restriction enzymes individually~~, which plurality of enzymes do not include those to which said vector is sensitive,~~ to produce a group of monodigested libraries;

f) independently transfecting said monodigested libraries;

g) screening said group of monodigested libraries for said known characteristic to detect the presence of intact target fragments, to thereby determine those restriction enzymes to which said target fragment is insensitive;

h) preparing a second initial library which is substantially the same is said first initial library;

~~h~~i) subjecting said initial library to substantially all of said plurality of restriction enzymes to which said target fragment is insensitive, to produce a multidigested library having ~~an intact clone of~~ the target nucleic acid fragment;~~ and~~

~~i~~j) transforming said multidigested library; and

k) isolating said target nucleic acid fragment.

17. (Previously amended) The process of Claim 16 wherein said restriction enzymes have cleavage sites from 5 nucleotides in length.

18. (Currently Amended) A process for isolating ~~an intact clone of one~~ a target nucleic acid fragment having a known characteristic, from a group of fragments, said method comprising:

a) preparing ~~an~~ first initial library of clones from said group of fragments using a vector containing no more than a predetermined number of known restriction sites;

b) subjecting said first initial library to a plurality of restriction enzymes individually~~, which plurality of enzymes do not include those to which said vector is sensitive,~~ to produce a group of mono-digested libraries;

c) transforming said monodigested libraries into bacteria;

d) culturing said bacteria to produce digested libraries substantially free of cleaved products, cleaving each digested library to produce digestion products, depositing said products in an agarose gel well, migrating said products, transferring said products onto a membrane, hybridizing said transferred products with a –probe, to thereby determine those restriction enzymes to which said target fragment is insensitive; ~~and~~

e) preparing a second initial library which is substantially the same as the first initial library;

~~d~~f) subjecting said second initial library to substantially all of said plurality of restriction enzymes to which said target fragment is insensitive, to produce a multi-digested library having an intact clone of the target nucleic acid fragment~~.~~; and

ge) isolating said target nucleic acid fragment.

19. (Currently Amended) A method for producing a series of monodigested libraries from a group of fragments, said method comprising:

a) preparing and initial library of clones from said group of fragments using a vector containing no more than a pre-determined number of known restriction sites; and

b) subjecting said initial library to a plurality of restriction enzymes individually, ~~which plurality of enzymes do not include those to which said vector is sensitive,~~ to produce a group of monodigested libraries.

20. (Withdrawn from consideration)

21. (Cancelled).

22. (Cancelled).

23. (Withdrawn from consideration)